

SURFACE SUPPLIED AIR (SSA) EQUIPMENT

CAUTION: A BID THAT DOES NOT FULLY COMPLY WITH ALL OF THE PROVISIONS, TERMS, AND CONDITIONS OF THIS OR ANY ACCOMPANYING SPECIFICATION AND BID, **MAY BE DETERMINED AS A COUNTEROFFER AND MAY RESULT IN THE BID BEING REJECTED FOR NON-RESPONSIVENESS.**

I. GENERAL:

A. It is the intent of this specification to describe the basic requirements for the purchase of SSA Equipment. These specifications cover only the general requirements as to the type and size of the SSA Equipment. Minor details of construction and materials where not otherwise specified are left to the discretion of the manufacturer who shall be solely responsible for the design and construction. All parts, items or features not specifically mentioned which are necessary or which are regularly furnished in order to provide a complete unit, shall be furnished by the manufacturer at the bid price.

B. The SSA Equipment must be tested, evaluated, and approved by the US Navy at the time of bid.

C. All components comprising the complete SSA Equipment as outlined in these specifications must be designed and manufactured to operate as an integral unit.

D. As per this specification, when referring to the SSA Equipment described in this specification it is to be a thoroughly field tested air delivery system that includes:

1. Light Weight Cylinders
2. Integrated Buoyancy Compensating Device
3. Surface Supplied Air with Lightweight, High Pressure Supply Hose
4. Dive Panel
5. Field tested and Proven Regulators and Breathing Valves.
6. Fill Adapters
7. Training to be provided for operation on SSA Equipment

E. The SSA Equipment, as a complete system, must be designed to operate effectively in the harsh range of environments the Milwaukee Fire Department operates under, inclusive of variances in depth, temperature, and contaminated water.

II. MANUFACTURER'S WARRANTY: The successful bidder will be required to furnish a warranty by the manufacturer that the brand of SSA Equipment bid is suitable for the service intended in accordance with the specification.

A. The Manufacturer will not require extraordinary measures, such as factory re-inspection or mandatory service, to maintain warranty coverage.

B. SSA System: Does this unit have a minimum of a one (1) year warranty against defects in materials and workmanship?
Yes _____ No _____

III. WARRANTY REPAIRS: Bidder is totally responsible for handling and rectifying all warranty claims and repairs related to this purchase and is responsible for all labor and transportation costs related to the warranty repair.

- A. WARRANTY STATEMENT: Bidder **shall** include a complete warranty statement confirming the above and any other applicable warranties with the bid.

IV. SERVICE FACILITIES:

- A. AVAILABILITY OF REPAIR/REPLACEMENT PARTS: Can you have parts delivered within 24 hours of notification for need of parts or if not a loaner unit be supplied until a safe, functional repair is made?
Yes___ No___

V. AWARD AUTHORITY:

- A. The Milwaukee Fire Department/City of Milwaukee will have final say of the quality and suitability of the equipment, materials and/or services in its determination of the successful bidder. Does the SSA system you are offering meet or exceed spec below?
Yes___ No___

VI. DESCRIPTION: A bid may not be considered if a bidder has failed to show without a doubt that they are bidding on regularly manufactured SSA that is tried, proven and in current use. **PRINTED LITERATURE DESCRIBING THE PARTICULAR UNIT (make, model and manufacturer's rating) AND A LISTING OF THREE OR MORE DIFFERENT USERS SHOULD BE INCLUDED WITH THE BID. THE LISTING OF USERS SHALL HAVE HAD EXPERIENCE WITH THE BRAND OF SSA BID FOR A PERIOD OF ONE YEAR AND SHALL INCLUDE THE NAME OF THE USER AND THE NAME AND TELEPHONE NUMBER OF A PERSON TO CONTACT.**

- A. QUANTITY: 1 Unit
- B. SSA: Acceptable make and model is the Interspiro Divator DP1 **or equivalent.**
- C. GENERAL:
1. Surface Supplied Air Equipment that utilizes a high pressure (~300bar) delivery.
 2. **Allow for 3 divers at the same time.**
 3. Include integrated communication cable and system allowing all 3 divers and tender to clearly communicate simultaneously or separately.
 4. Enough equipment to retrofit current system (DIN compatible) to be interoperable with SSA system bid for two (2) divers.
- D. COMMUNICATIONS:
1. Include integrated communication cable and system allowing all 3 divers and tender to clearly communicate simultaneously or separately.
- E. HEADS UP DISPLAY (HUD)
1. To be integrated into Divator MKII Masks. Display low pressure if cylinders are at approximately 25% of cylinder working pressure.

F. LIGHT WEIGHT SCUBA CYLINDERS

1. Construction to ensure low weight with durability: Thermoplastic Resin, Carbon Fiber, Glass Fiber, Epoxy with Stainless Steel fittings.
 - a) Maximum Dry Weight: 16lbs
 - b) Working pressure of at least 4300psi
2. Low profile to minimize the risk of entanglement.
3. DOT approved
4. Configurable as "twin" setup to reduce overall profile.

G. BCD

1. Cylinders must mount to back plate of BCD.
2. Fully integrated weight release system for diver safety.
3. Removable integral weight to reduce diver fatigue while on standby out of the water.
4. Constructed of ballistic nylon at least 1650 denier preferable.
5. Allow for use with wet and dry suits.
6. Lift capacity to be at least 60lbs.
7. Multiple sizes available.

H. SURFACE SUPPLIED AIR UNIT

1. Must be able to support **3 Divers** simultaneously diving at different depths without necessitating adjustment for over bottom pressure.
2. The system must automatically switch to Divers bottles should there be a loss of Surface Supplied Air.
3. Must permit changing of air supply cylinders without interruption in air supply.
4. High Pressure Air Hose Bundle:
 - a) Minimum tensile strength of 1900lbs to include all attachments to diver.
 - b) Working pressure to be at least 4300psi.
 - c) OD no greater than 10mm.
 - d) Bundled with communication line by a sleeve to reduce entanglement risk.
 - e) Length of hose to be 200 feet and not to exceed 40lbs. Must be designed for easy decontamination and provide ample abrasion
 - f) resistance. A durable bag that allows for secure carrying to dive location and easy winding of hose allowing for rapid deployment without hose twist.
5. Dive Panel:
 - a) Audible low pressure alarm for attendant.
 - b) Must permit changing of air supply cylinders without interruption in air supply.
 - c) Maximum weight of 15lbs.
6. First Stage Regulator Tested and approved by the US Navy for use in cold water and a minimum depth of 198ft.
7. Octopus Regulator: Tested and approved by the US Navy.
8. Reserve Air: Must automatically activate with low air.

I. FILLING ADAPTERS:

1. Fill adapters must be supplied for filling the high pressure cylinders referred to in this bid.
2. Adapters must be supplied to allow use of current SCBA bottles with SSA system.
 - a) Current SCBA bottles are MSA threaded bottles.

3. Adapters must be supplied to allow use of MSA GI Quick Disconnect system. winning bid of SCBA bottles with SSA system.
 - a) An alternative is having the terminal end being a male ¼ NPT allowing for the use of MSA adapter # 10162403

J. TRAINING

1. Provide hands on training for: testing, maintaining, operation. Training shall result in certification.

VII. **RESPONSIBILITY OF BIDDERS:** Bids will not be considered from firms which are not in sound financial condition, or which do not have adequate facilities or sufficient experience for supplying the SSA specified.

VIII. **ADDITIONAL INFORMATION:** Any questions regarding specification or bid should be directed to Diana Herrejon via email at diherre@milwaukee.gov no later than ten (10) days prior to bid opening.

Requests for extension of delivery will only be considered if the delay is the result of a bona fide strike, government priority or requisition, riots, fires, sabotage, acts of God, or any other delays deemed to be clearly and unequivocally beyond the control of the vendor.

XVI. **BRAND NAMES:**

- A. **References:** If articles have been identified in the bid by a "Brand Name" and model number, such reference is intended to be descriptive but not restrictive to that brand. It is for the sole purpose of indicating to the prospective bidders a description of articles that will be satisfactory. Other items of equal quality will be considered. Samples and/or demonstrations may be requested.
- B. **Substitutions:** Unless the bidder clearly indicates in his bid that he is offering is a different article, his bid shall be considered as an offering of the brand name article.

XVII. **VENDOR REQUIREMENTS:** Bids will only be accepted from vendors who have experience with the equipment being specified and are authorized distributors for the brand of equipment bid.